Module 5: Objectives And Targets

GUIDANCE

Environmental Objective:

"Overall environmental goal, arising from the environmental policy, that an organization sets itself to achieve, and which is quantified where practicable."

ISO 14001 Definitions

Environmental Target:

"Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives."

Factors to consider in setting objectives and targets

- ☑ *ability to control*
- ☑ *ability to track / measure*
- ☑ *cost to track / measure*
- ☑ *progress reporting*
- ☑ *links to policy commitments*

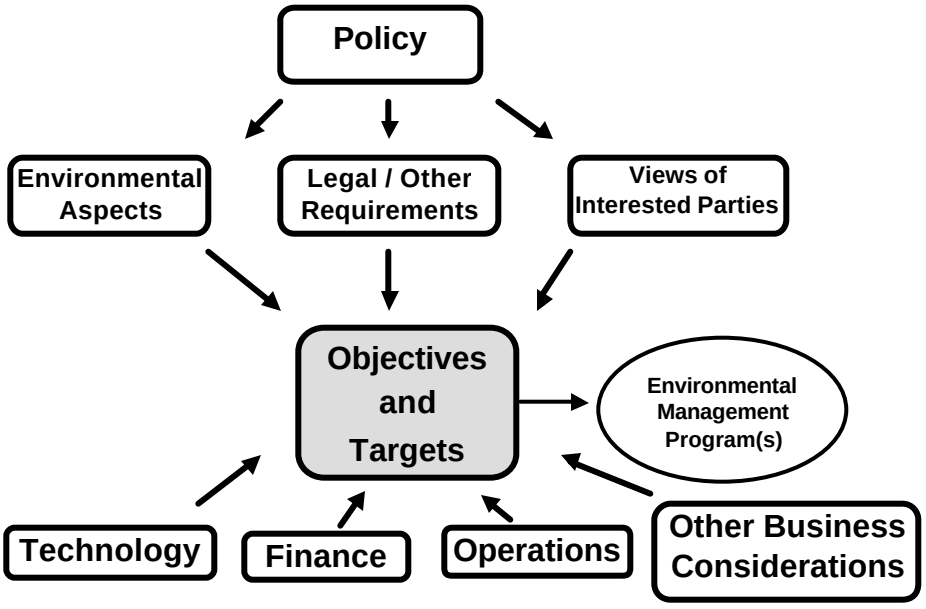
Objectives and targets help an organization **translate purpose into action.** These environmental goals should be factored into your business plans. This can help you integrate environmental management with your organization's other management processes.

Based on your business realities and goals, **you determine** what objectives and targets are appropriate for your organization. In setting objectives, keep your environmental policy commitments in mind. You should also consider your SEAs, applicable legal and other requirements, the views of interested parties, your technological options, and financial, operational, and other organizational considerations. Figure 5-1 summarizes these considerations.

There are no "standard" environmental objectives that make sense for all organizations. Your objectives and targets should reflect what your organization does, how well it is performing, and what it wants to achieve. Tool 5-1 provides a worksheet to start you thinking about this area.

Your EMS must document how you go about the process of identifying objectives and targets. Therefore, your EMS should have a **procedure** for this area. Tool 5-2 provides an example of such a procedure. Form 3-2 from Module 3 includes room to record objectives and targets and can be used with Tool 5-2 for this purpose. In some cases it may make sense to roll up objectives and targets from individual processes, departments or functions to an organization-wide level. Example 5-1 shows how such a roll-up can be presented.

Figure 5-1. Considerations for Developing Objectives and Targets



Hints

- Setting objectives and targets should involve **people in the relevant functional area(s)**. These people should be well positioned to establish, plan for, and achieve these goals. **Involving people** helps to **build commitment.**
- Get **top management buy-in** for your objectives. This should help to ensure that adequate resources are applied and that the objectives are integrated with other organizational goals.
- In **communicating objectives to employees,** try to link the objectives to the **actual environmental improvements** being sought. This should give people something tangible to work towards.
- Objectives should be **consistent** with your overall mission and plan and the key commitments established in your **policy** (pollution prevention, continual improvement, and compliance). Targets should be sufficiently clear to answer the question: "Did we achieve our objectives?"
- Be **flexible** in your objectives. Define a desired result, then let the people responsible determine **how** to achieve the result.
- Objectives can be established to **maintain** current levels of performance as well as to **improve** performance. For some SEAs you might have both maintenance and improvement objectives.

- Communicate your **progress** in achieving objectives and targets across the organization. Consider a regular report on this progress at staff meetings or posting key targets and progress to those targets in our plant.
- To obtain the **views of interested parties**, consider holding an open house or establishing a focus group with people in the community.
- How many objectives and targets should an organization have? Various EMS implementation projects indicate that it is best to start with a limited number of objectives (say, three to five) and then expand the list over time. **Keep your objectives simple** initially, gain some early successes, and then build on them.
- Make sure your objectives and targets are **realistic.** Determine how you will **measure progress** towards achieving them.
- Keep in mind that your **suppliers** (of service or materials) can help you in meeting your objectives and targets (e.g., by providing more "environmentally friendly" products).
- If an environmental aspect is not significant then it does not need an objective and target.

POLLUTION PREVENTION TOOLS

Objectives and targets for particular aspects often can include pollution prevention (for example, reducing hazardous material use, waste generation, energy use, etc.).

As interest in pollution prevention grows and organizations look to move beyond the 'low-hanging fruit," it becomes increasingly important to find ways to evaluate the potential benefits of pollution prevention alternatives. Two such tools are *Life Cycle Analysis (LCA) and Total Coast Assessment (TCA).*

Life Cycle Analysis generally focuses on the environmental aspects of a specific product (although it could be applied to processes or services) over its lifetime. LCA looks at each stage from raw material through production, use, and disposal. Inputs to the analysis include energy use, waste generation, emission, and releases from each stage.

Total Cost Assessment focuses on the total costs of a project or product, including environmental costs which many assessment methods do not include. This is often done to support evaluations of process or product changes over the long term. For example, TCA might be used to assess the benefits and costs of continuing to use a VOC-based process versus those of using a water-based process for the same purpose.

The remainder of this module provides a worksheet for considering objectives and targets (Tool 5-1), a sample procedure for objectives and targets (Tool 5-2), and examples of how to document objectives and targets (Examples 5-1 and 5-2).

TOOLS

Tool 5-1: Objectives and Targets Worksheet

Do we have an **existing process** for setting and reviewing environmental objectives and targets? If so, does that process need to be revised? In what way(s)?	
Who needs to be involved in this process within our organization? Should any outside parties be involved?	
When is the **best time** for us to implement this process? Can it be **linked** to another existing organizational process (like our annual or strategic planning process?)	
What are our **existing environmental goals**? How were these developed? Who was involved? What **factors** were considered in setting these goals?	
Who are our **interested parties**? How do we **obtain their views**? **How effective** has our process been?	
How can we effectively and efficiently **track our progress** and **communicate the results**? **Who** is in the best position to do this?	
Our next step on environmental objectives and targets is to …	

Tool 5-2: Sample Procedure for Identification of Objectives and Targets

Purpose

[Your Facility's Name] sets objectives for environmental improvement and develops targets and action plans to meet those objectives. These objectives are directly related to the company's significant environmental aspects (SEAs) and follow from its environmental policy commitments.

Procedure

1. The cross functional team (CFT) or designee identifies objective and targets that the plant manager reviews and approves. The environmental objectives and targets for each process are recorded using the last column of **Form 3-2 for each process.** They can then be summarized on a form similar to **Example 5-1, Objectives and Targets Organized by Category**, for the plant as a whole. For each SEA, the organization will establish an appropriate objective and target. There are three types of objectives represented as follows:

C	=	Control or Maintain
I	=	Improve
S	=	Study or Investigate

Guidance regarding use of these objectives is provided for use by the CFT:

Control or Maintain – is an appropriate objective for SEAs that are the subject of environmental regulations, because the environmental policy states that we will comply with the law. In these cases, the objective will be to maintain conformance with operational controls, such as procedures and work instructions that apply to those significant aspects. The target will be ongoing.

Improve – is appropriate for SEAs that our company goals commit us to improving on. For example, energy- or water-use reductions that are not required by law but fall within our commitment to pollution prevention. Improvement objectives also can be used for SEAs that have regulatory drivers and environmental improvement goals. For example, we have regulatory requirements and fugitive emission reduction goals for our VOC emissions. Copper in storm water effluent is another example because we wish to reduce discharge levels below the limits set in our permits. Thus, the objective for these will be C and I (that is, maintain compliance and reduce emissions).

Study or Investigate – is appropriate in cases where the CFT thinks improvement will be feasible and beneficial, but study is needed to determine how much improvement can be achieved and timeframes that are feasible. The objective will be to study the alternatives by a target date in preparation for later setting an improvement objective (or dropping the objective if the study reveals that the changes are not financially, technologically, or logistically feasible).

2. The CFT is also responsible for developing and recommending potential new environmental objectives to top plant management. In identifying potential new objectives, the CFT considers the following:
    - Environmental policy
    - SEAs (especially, those SEAs that pose chemical risk)
    - Applicable laws and regulations and potential future laws and regulations
    - Practical business criteria, such as the potential costs and benefits of pursuing a particular environmental objective and our commitment to pollution prevention
    - The views of employees and other interested parties
3. When developing and recommending objectives, the CFT should consider the number of columns that were marked "yes" on **Form 3-2**. These columns relate to the significance criteria established by this EMS (legal/company requirements, community concerns, pollution prevention potential, and/or potential impact on the environment). Those SEAs with two or more Yes or High rankings will likely be good candidates for control, improvement or investigation.
4. Once environmental objectives are approved by top plant management, the Environmental Management Representative (EMR) assigns responsibility (to the manager of the process in question, where appropriate) for developing targets and action plans to realize the objectives. Sometimes, this may require an alternatives evaluation (or study) as the first target (or action item). These action plans are addressed in Module 6, Environmental Management Program(s).

Frequency
Environmental objectives are reviewed at least annually. The targets and action plans are developed and revised as needed by the CFT or designee.

Records
Environmental objectives and targets are recorded using **Form 3-2.** A summary of company objectives and targets can be recorded using a form like **Example 5-1**. Environmental Management Programs that correspond to each objective are recorded using **Tool 6-2**. The EMR or designee is responsible for maintaining these records.

EXAMPLES

Example 5-1: Objectives and Targets Organized by Category

Objectives	Targets
Supplies	
Increase use of non hazardous chemicals by suppliers	• Increase use of suppliers that provide alternative chemicals by 15% by January 2002
Reduce amount of supplies used	• Implement recycling of supplies (abrasive media, oil, plastic, laser cartridges, metal, paint booth water) respectively by January 2004 • Implement reuse program for wooden pallets by January 2004
Chemicals	
Reduce usage of hazardous chemicals	• Reduce use of high-VOC paints by 25% by January 2004 • Increase use of water-soluble cutting fluids by 15% by January 2004
Energy Use	
Reduce energy usage	• Reduce electricity use by 10% by January 2004 • Reduce natural gas use by 15% by January 2004
Water Use	
Reduce water use	• Reduce water use by 10% by January 2002
Air Emissions	
Reduce air emissions	• Reduce boiler emissions by 10% by January 2004 • Improve material handling practices (for example, use of paint warming cabinets) by January 2004 • Improve paint usage tracking system by January 2004 • Reduce paint overspray by 25% by January 2004 by training personnel on correct spray painting techniques and developing maintenance program for spray painting equipment to allow maximum transfer efficiency (to be supported by paint vendor).

Objectives	Targets
Water Discharges	
Reduce VOCs in wastewater discharges	• Increase use of aqueous cleaners by 20% by January 2004
Improve habitat and water quality of estuary	• Restore fish stocks and habitat by January 2004
Solid/Liquid Wastes	
Reduce paint waste	• Reduce paint waste by 25% by paint mixing at point of use by January 2004
Reduce hazardous waste	• To be achieved by target above and reduction of hazardous chemicals use
Stormwater Discharges	
Reduce metal concentration in storm water discharge	• Improve stormwater collection and filtration system by January 2004 • Investigate effectiveness of additional best management practices (BMPs) by January 2003
Spills	
Reduce occurrence of spills	• Reduce spill occurrence by 10% by January 2004 by training the following personnel: (1) all plant personnel will receive awareness training during 2002; (2) all raw material handling personnel will receive spill prevention training during 2003; and (3) all production personnel will receive spill control training to reduce spills that exit the plant during 2003. Also, CFT will develop a team to conduct a root-cause analysis of spills during 2002 that will be incorporated into the training program.

Example 5-2: Identification of Objectives and Targets for Outdoor Painting of Large Equipment

This is an example of the use of Form 3-2, which continues from Example 3-2 in Module 3.

Person Completing Form: John Smith, Environmental Engineer Area/Process: Outdoor Painting of Large Equipment Date: 5/17/01

ASPECT IDENTIFICATION			SIGNIFICANCE DETERMINATION						OBJECTIVES &TARGETS	
Category/Aspect	**Inputs, Processes, Outputs, Produ cts**	**Quantity or Volume**	**Legal Requirements/ Voluntary Commitments, Company Policy**	**Community Concern**	**Pollution Prevention Potential**	**Potential Impact to the Environment**	**N or S**	**Rationale for Significance (S) or Nonsignificance (N)**	**Objective & Type** C = control or maintain S = study or investigate I = improve	**Target**
Energy Usage:										
Electricity/ Paint Mixers	Mix and thin coatings (Pro-3)	10 kw/ year	No	No	Low	Low	N	Does not meet significance criteria, low volume usage	NA	NA
Diesel Fuel/Forklift	Transport coatings and waste to site (Pro-1, Pro-14, Pro-15, Pro-16, Pro-18, Pro-19, Pro-20)	1000 gallons per year	No	No	Low	Low	N	Does not meet significance criteria, low volume usage	NA	NA
Water Usage:										
NA		NA								
Supplies/Disposables:										
Rags	Inp-3		No	No	Low	Low	N	Does not meet significance criteria	NA	NA
Gloves	Inp-3		No	No	Low	Low	N	Does not meet significance criteria	NA	NA
Tyvek coverall	Inp-3		No	No	Low	Low	N	Does not meet significance criteria	NA	NA
Filters	Inp-3		No	No	Low	Low	N	Does not meet significance criteria	NA	NA
Sand Paper	Inp-3		No	No	Low	Low	N	Does not meet significance criteria	NA	NA
Chemicals:										
VOC Content HAP Content	Virgin Coatings (Inp-1)		Yes	Yes	Low	NA	S	Marine Coating Rule, Air Permit	C-Maintain Compliance	Ongoing
VOC Content HAP Content	Virgin Thinners (Inp-2)		Yes	Yes	Low	NA	S	Marine Coating Rule, Air Permit	C-Maintain Compliance	Ongoing

ASPECT IDENTIFICATION			SIGNIFICANCE DETERMINATION						OBJECTIVES &TARGETS	
Category/Aspect	**Inputs, Processes, Outputs, Produ cts**	**Quantity or Volume**	**Legal Requirements/ Voluntary Commitments, Company Policy**	**Community Concern**	**Pollution Prevention Potential**	**Potential Impact to the Environment**	**N or S**	**Rationale for Significance (S) or Nonsignificance (N)**	**Objective & Type** C = control or maintain S = study or investigate I = improve	**Target**
Air Emissions:										
Fugitive VOCs	Applying Coating (Pro-7)	40 tons	Yes	Yes	Yes	NA	S	Marine Coating Rule, permits of operate, toxic air emissions rule	I-Reduce Fugitive VOCs, HAPs, and particulates	10% reduction by January 2004
Fugitive HAPs	Applying Coating (Pro-7)	10 tons	Yes	Yes	Yes	NA	S	Marine Coating Rule, permits of operate, toxic air emissions rule	I-Reduce Fugitive VOCs, HAPs, and particulates	10% reduction by January 2004
Over spray, fugitive particulate emissions	Applying Coating (Pro-7)	8 tons	Yes	Yes	Yes	NA	S	Marine coating rule, coating permits to operate, toxic air emissions rule	I-Reduce Fugitive VOCs, HAPs, and particulates	10% reduction by January 2004
Noise/Odor/Radiation:										
Odor from VOCs fume	Applying Coating (Pro-7)		No	No	Low	Low	N	Does not meet significance criteria	NA	NA
Wastes:										
Contaminated Scrap	Waste Paint Cans (Out-1)	10,000 lbs per year	No	No	Yes	Low	S	Waste Reduction Program	S-Study waste reduction strategy	Complete Study by April 2003
Contaminated Waste	Tyvek Suits, Rollers, Brushes, Filter Masks, Paint Stirrers, Drop Clothes, Masking Tape (Out-5), Debris (Out-6)		No	No	Yes	Low	S	Waste Reduction Program	S-Study waste reduction strategy	Complete Study by April 2003
Waste Chemicals	Waste Paint and Solvent (Out-2)	1,500 gallons	Yes	Yes	Yes	NA	S	RCRA (Title C)	C-Maintain Compliance	Ongoing
Solid waste, landfill	Consolidate contaminated disposables (Pro-12) and debris (Pro-13)	10,000 and 5,000 lbs per year	No	No	Yes	Low	S	Waste Reduction Program	S-Study waste reduction strategy	Complete Study by April 2003

ASPECT IDENTIFICATION			SIGNIFICANCE DETERMINATION						OBJECTIVES &TARGETS	
Category/Aspect	**Inputs, Processes, Outputs, Products**	**Quantity or Volume**	**Legal Requirements/ Voluntary Commitments, Company Policy**	**Community Concern**	**Pollution Prevention Potential**	**Potential Impact to the Environment**	**N or S**	**Rationale for Significance (S) or Nonsignificance (N)**	**Objective & Type** C = control or maintain S = study or investigate I = improve	**Target**
Water Discharges:										
NA										
Stormwater Discharge:										
VOC-contaminated water			Yes	Yes	Yes	NA	S	Storm water permit	C-Maintain Compliance	Ongoing
Heavy metal contaminated water			Yes	Yes	Yes	NA	S	Storm water permit	I-Reduce heavy metal discharge via storm water runoff	Reduce quantity 50% by 2003
Spillage and Other:										
Spillage	Transport waste cans, cleaning solvents, contaminated solvents and debris to scrap yard (Pro-14, Pro-18, Pro-19, Pro-20)	5 gallons per year	No	No	Low	Low	N	Does not meet significance criteria, low volume spillage	NA	NA
	Consolidate equipment cleaning solvent into drums (Pro-16)	10 gallons per year	Yes	No	Low	NA	S	Volume exceeds “No Spill” Policy limits	C-Maintain Compliance	Ongoing
	Transport coatings and thinners (Pro-1 through Pro-6)		No	No	Low	Low	N	Does not meet significance criteria, low spillage volume	NA	NA
Spillage, contaminated scrap	Consolidate Waste (Pro-9)	5 gallons	No	No	Low	Low	N	Does not meet significance criteria , low volume of spillage, scrap is recycled	NA	NA
Coating Thinner Spillage	Consolidate waste paint and solvent (Pro-10)	100 gallons per year	Yes	No	Low	NA	S	Volume exceeds “No Spill” Policy limits	C-Maintain Compliance	Ongoing
	Solvent Cleaning of Equipment (Pro-11)	50 gallons per year	Yes	No	Low	NA	S	Volume exceeds “No Spill” Policy limits	C-Maintain Compliance	Ongoing
	Consolidate Contaminated Solvent into Drums (Pro-16)	10 gallons per year	Yes	No	Yes	NA	N	Does not meet significance criteria, low volume of spillage	NA	NA